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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,054	01/26/2001	Richard A. Mallo	56147USA8A.002	7236

7590 04/15/2009
Attention: Yen Tong Florczak
Office of Intellectual Property Counsel
3M Innovative Properties Company
P.O. Box 33427
St. Paul, MN 55133-3427

EXAMINER

FUBARA, BLESSING M

ART UNIT	PAPER NUMBER
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1618

MAIL DATE	DELIVERY MODE
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04/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/771,054	Applicant(s) MALLO ET AL.	
	Examiner BLESSING M. FUBARA	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29,31-34,36,37,39-42,46-49 and 51-54 is/are pending in the application.
- 4a) Of the above claim(s) 37 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-34,36,39,40,46-49 and 51-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The examiner acknowledges receipt of request for extension of time, amendment and remarks filed 01/20/2009. Claims 29, 31-34, 36, 37, 39-42, 46-49 and 51-54 are pending. Claims 30, 43-45 and 50 are canceled. Claims 29, 31-34, 36, 40, 41, 46-49 and 51 are amended. New claims 52-54 are added. Claims 37 and 42 are withdrawn from consideration.

Response to Arguments

Previous rejections that are not reiterated herein are withdrawn. Specifically, the rejections under 35 U.S.C. 112, second paragraph is withdrawn in view of the amendment to the claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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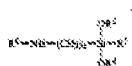
3. Claims 29, 31-34, 36, 39-41, 46-549, 51 and new claims 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kantner et al. (US 6,433,073 B1) in view of Baghdachi et al. (US 4,954,598) and further in view of applicant's admitted prior art.

Kantner discloses polyurethane dispersion containing isocyanate terminated polyurethane (abstract; column 4, lines 13-19; column 9, lines 38-67) meeting the limitation of the polyurethane urea of claims 29, 52 and 54; ethylene diamine (column 4, line 17) meeting the chain extender of claims 34, 49, 52 and 54; mixture of alcohol and water (column 4, line 10) meeting the hydrophilic compound of claim 52 and 54; diisocyanate and polyester diol (column 4, lines 15-17) meeting the isocyanate and diol limitations of claims 31, 32, 42, 46, 47, 49, 52 and 54; the polyols of Kantner have molecular weight of 62 to 10,000, preferably 200 to 5,000, and most preferably from 400 to 3,000 (column 6, lines 41-43) meeting claims 33, 48; the composition is applied to the skin as foundation, moisturizer and is also applied to the nails (column 5, lines 21, 29-37) and when applied, the application process meets the generic method claims 29, 52 and 54, the composition dries to a film of about 0.025 millimeter in thickness (claim 18) meeting instant claims 39 and 53. Besides using the composition as a cosmetic, Kantner anticipates to use the composition as hair care product (column 5, lines 38-51), for coating medical devices (column 5, lines 54-62), for sealing, bundling, book binding, packaging (column 4, line 61 to column 5, line 5). The sulfonate of Kantner (see column 9, lines 38-67) meet the hydrophilic component of claims 36 and 51. While Kantner teaches isocyanate terminated polyurethane in a cosmetic composition in the form of body lotion, skin cream, lipstick, rouge, nail polish, face powder insect repellant for application to the skin or nail (column 5, lines 29-37) meeting claim 41, Kantner does not use silylated polyurethane urea

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polymer. But silylated polyurethane polymer resins are known in the art and the silylation provides the polymer advantages such as accelerated curing rate, improved adherence of the polymer and better shelf life according to the teaches of Baghdachi at column 7, lines 1-20.

Specifically, Baghdachi uses amino silane



so that when x is 3, and R⁶ is hydrogen, R³, R⁵ and R⁴ are each C₁₋₄, the silyl groups in claim 29 that are canceled by the present amendment are met. However, the silyl groups in Baghdachi are equivalent to the silyl groups now in amended claim 29 and new claim 52 so that one silyl containing compound can be used in place of the other so that the silyl compounds of Baghdachi would react with the polyurethane in the same way as the those of the claims to produce silylated polyurethane urea. The equivalence of the silyl compounds of Baghdachi and those of the claims is admitted to by applicant on page 12, lines 12-30 of the original specification where the first listed compound in the list of the silanes used in the functionalization is the same as the amino silane of Baghdachi. In the absence of factual evidence to the contrary, the silyl compounds of Baghdachi would be used to produce silylated polyurethane urea that is used in the cosmetic composition of Kantner. Therefore, taking the teachings of the prior art, one having ordinary skill in the art at the time the invention was made would have reasonable expectation of success that using silylated polyurethane in the composition of Kantner would lead to a cosmetic product having good shelf life, good curing rate and good adhesion when the composition is applied to the nails at least. One silyl compound can be used in place of the other absent evidence to the contrary. Thus the claims

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would have been obvious to a person of ordinary skill in the art when the teachings of the references are taken together.

Response to Arguments

4. Applicant's arguments filed 1/20/09 have been fully considered but they are not persuasive.

Applicant argues that Kantner in view of Baghdachi does not teach polyurethane urea that is functionalized with at least one silyl containing component listed in amended claim 29 and 52. The examiner agrees with the applicant that the silyl compounds now recited in claims 29 and 52 are not the ones disclosed by Baghdachi for modifying or functionalizing the polyurethane urea. However, it is noted that silyl groups of Baghdachi are equivalent in their reactivity towards the polyurethane since these as per applicant on page 12, lines 12-30 of the original specification and absent factual evidence, the amino silane of Baghdachi would effectively functionalize the polyurethane urea as the silyl groups in claim 29 and 52. Therefore, the burden is on applicant to show that the amino silane of Baghdachi cannot be used to functionalize polyurethane ureas and that the other silyl groups or compounds cannot be used in place of the silyl compound of Baghdachi. Further therefore, claims 29, 52 and 54 and the claims dependent therefrom are not patentable over Kantner in view of Baghdachi.

No claim is allowed.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLESSING M. FUBARA whose telephone number is (571)272-0594. The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/
Supervisory Patent Examiner, Art Unit 1618

/Blessing M. Fubara/
Examiner, Art Unit 1618